

DISCOVERY OF THE MASSACHUSETTS FERN IN WISCONSIN

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An interesting discovery made in a recent survey of the flora of the "Driftless Area"* was the Massachusetts fern, *Thelypteris simulata* (Davenp.) Nieuwl. An abundance of this species was found growing in low sandy woods in the old bed of Glacial Lake Wisconsin in Jackson County, Wisconsin. Collections were made in 1958 and 1960 at two localities about eight miles apart: near Rudd's Hills, Section 35, Millston Twp. (Hartley 4029), and north of Wildcat Mound, Section 22, Millston Twp. (Hartley 4819 and 9600). Duplicates of these collections have been distributed to the following herbaria: State University of Iowa, University of Wisconsin, Gray Herbarium, United States National Herbarium, Rancho Santa Ana Botanic Garden, University of Minnesota, University of Michigan, University of Illinois, Wisconsin State College at Eau Claire, and Wisconsin State College at LaCrosse.

My collections appear to be the first authentic records of this species west of West Virginia. There are reports of it from the dune country of northwestern Indiana by Pepon (1927) and Peattie (1930), but Fassett (1933) has pointed out that the Umbach collection upon which these were based was misidentified marsh fern, *Thelypteris palustris*. The accompanying map shows the distribution of *Thelypteris simulata* as represented by the Wisconsin collections and collections at the Gray Herbarium, New England Botanical Club Herbarium, United States National Herbarium and the Wiegand Herbarium of Cornell University.

The "Driftless Area" of the Upper Midwest is completely surrounded by glaciated territory and apparently was not covered by continental glaciation during the Pleistocene epoch. Within the belts covered by continental ice sheets of

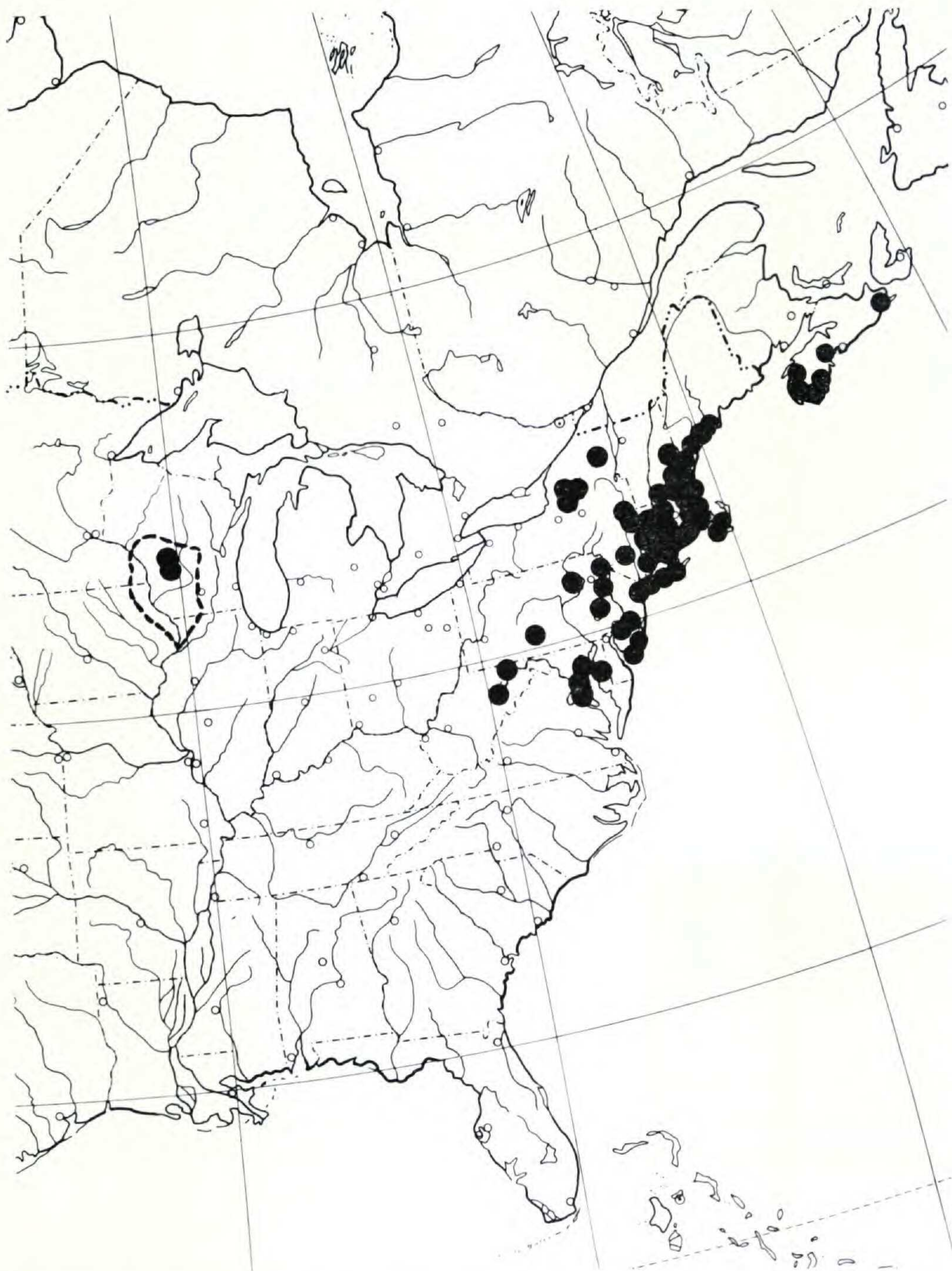
*A dissertation for the degree of Ph. D. at the State University of Iowa, Iowa City, was based on this survey.



Massachusetts fern, *Thelypteris simulata* (Davenp.) Nieuwl., in Jackson County, Wisconsin. (Hartley 9600.) Plate 1317

northeastern North America and northwestern Europe there is no similar region of substantial size which was left bare of glacial ice. As delimited in this survey, the "Driftless Area" covers approximately 15,000 square miles of southwestern Wisconsin and adjacent Minnesota, Iowa and Illinois. The inclusion of northeastern Iowa and southeastern Minnesota requires figurative usage of the name since older ice sheets, generally believed to have been Kansan and Nebraskan, are thought to have covered these areas.

The old bed of Glacial Lake Wisconsin covers approximately 1,825 square miles in the northeastern section of the



Distribution of the Massachusetts fern, *Thelypetris simulata* (Davenp.) Nieuwl. The broken line surrounding the Wisconsin stations indicates the limits of the "Driftless Area."